## REMARKS

Reconsideration of the present application is requested. Claims 2-4, 7-15, 20-25, 29-32, 34-36, and 40-43 are pending.

### REJECTION UNDER 35 U.S.C. § 112, FIRST PARAGRAPH

The Examiner rejects claims 1, 12 and 13 under 35 U.S.C. § 112, first paragraph as failing to comply with the written description requirement. Particularly, the Examiner contends:

> ...the specification does not appear to describe the complete set of limitations as in the method of claim 1. While each limitation is described in the specification, the complete process does not appear to be described. Further, the first limitation appears to be independent of the remaining limitations, which also does not appear to be described in the specification.

Office Action, U.S. Pat. & Trademark Office., p. 4 (July 10, 2007).

Applicants disagree with the Examiner's statement. As the Examiner is well-aware, there is a <u>strong presumption</u> that an adequate written description of the claimed invention is present when the application is filed. *In re Wertheim*, 541 F.2d 257, 263, 191 USPQ 90, 97 (CCPA 1976). The Examiner feels the description is insufficient; so insufficient so as to overcome this strong presumption. But, the Examiner has not satisfied the initial burden of presenting evidence or reasons why <u>a person skilled in the art</u> would not recognize that the written description of the invention provides support for the claims. MPEP § 2163(II)(A). Applicants respectfully submit that this is because the present application does provide sufficient support for the claims so as to

comply with 35 U.S.C. § 112, first paragraph. For at least this reason, this rejection should be withdrawn.

In further support of the above arguments, Applicants provide the following discussion to aid the Examiner in understanding the example embodiments described in the application. The following discussion refers to paragraphs **[0021-0026]** of Applicants' Specification.

An example embodiment is directed to a method for simulating a technical system. In this example embodiment, a set of setting parameters $(x = (x_1, x_2, ..., x_n)^T)$ are optimized (e.g., at Optimization Block 101 in FIG. 1, 2) for a required function $(f_{\alpha, \beta, ...}(x))$. The required function $(f_{\alpha, \beta, ...}(x))$ is based on the set of setting parameters $(x = (x_1, x_2, ..., x_n)^T)$ and a first set of setting constants $(\alpha, \beta, ...)$. The set of setting constants $(\alpha, \beta, ...)$ are static during the optimizing step, and the set of setting parameters $(x = (x_1, x_2, ..., x_n)^T)$ are for design and reaction of the technical system (e.g., a power station).

A result (e.g., determined at 102 in FIG. 1, 2) is determined as a function of the set of setting parameters $(x = (x_1, x_2, ..., x_n)^T)$ and based on a request to an external source (106 in FIG. 1, 2). The result is in the form of an influence of the set of setting parameters $(x = (x_1, x_2, ..., x_n)^T)$ on the technical system. The result is temporarily stored (e.g., at Record file 104 in FIG. 1, 2). The technical system is simulated based on the result and the setting constants $(\alpha, \beta, ...)$.

The external source (106 in FIG. 1, 2) is checked (e.g., at 201 in FIG. 2) to determine an influence of each of a plurality of sets of setting parameters

$(x = (x_1, x_2, ..., x_n)^T)$ on the technical system, and the influences are temporarily stored (e.g., at Simulation database 202). An additional influence is determined by extrapolating using the temporarily stored results.

Given the aforementioned discussion and support, the claims are clearly and sufficiently disclosed in the specification so as to comply with 35 U.S.C. § 112, First Paragraph. Withdrawal of this rejection is requested.

## PRIOR ART REJECTIONS

### Rejection under 35 U.S.C. § 103(a)

The Examiner rejects claims 1-4, 7, 9-15, 20-25, 28, 30-36, 39 and 41-43 under 35 U.S.C. § 103(a) as allegedly being unpatentable over "Microsim Pspice A/D & Basics+," June 1997 ("Microsim") in view of U.S. Patent No. 6,327,557 ("Croix") and "Microsim Pspice Optimizer," June 1997, ("Optimizer"). Applicants traverse this rejection.

Applicants have canceled claim 1 and re-written claims 7 and 9 in independent form. Therefore, Applicants will address this rejection with respect to claims 7 and 9.

In the method of claim 7, for example, a result is determined as a function of a set of setting parameters and based on a request to an external source. The result is in the form of an influence of the set of setting parameters on the technical system. The technical system is simulated based on the result and the setting constants. Afterward, the influence of each of a plurality of sets of setting parameters on the technical system is determined by checking the external source.

The Examiner correctly recognizes that Microsim and Optimizer fail to teach or suggest determining an "<u>influence of each of a plurality of sets of setting parameters on the technical system</u>," by "<u>checking the external source</u>," as required by claim 7, but directs Applicants' attention to column 5, lines 8 – 50 of Croix to make up for this deficiency.

Column 5, lines 8 – 50 of Croix discusses interpolating between measured responses to a preselected number of input transition times and output loads to determine additional, unmeasured responses. In other words, this portion of Croix discloses obtaining a few data points, and interpolating between the data points to obtain more data points. No influence is determined by checking an external source. In fact, Croix is silent with regard to any external source at all, and thus, all such interpolation must be performed internally. Therefore, column 5, lines 8 – 50 do not teach or fairly suggest constitute determining an influence of each of a plurality of sets of setting parameters on the technical system "<u>by checking the external source</u>," as required by claim 7.

Further, the Examiner correctly recognizes that neither Microsim nor Optimizer teach or suggest determining "<u>an additional influence</u>," "<u>on the basis of the temporarily stored results</u>," as required by claim 7, but relies upon Croix to allegedly teach this feature. However, none of Croix, Microsim or Optimizer teaches or fairly suggests determining "<u>an additional influence</u>," using "<u>extrapolation</u> on the basis of the temporarily stored results," as required by claim 7.

While Croix discusses interpolating between measured responses to determine additional, unmeasured responses, Croix, is silent with regard to any "extrapolation," of these values. As the Examiner will appreciate, interpolation and extrapolation are quite different, and thus, extrapolation would not be obvious to one of ordinary skill given the teaching of interpolation in Croix.

In more detail, interpolation is a method of constructing new data points within a discrete set of known data points by curve-fitting or regression analysis, for example. Extrapolation, on the other hand, is the process of constructing new data points outside a discrete set of known data points. As the Examiner will appreciate, interpolation often produces more meaningful and certain results than extrapolation, for example. Accordingly, one of ordinary skill would not consider using extrapolation given the use of interpolation.

Moreover, both Microsim and Optimizer are silent with regard to any determining of an additional influence, let alone determining an additional influence using "extrapolation."

For at least the foregoing reasons, claim 7 is patentable over Microsim, Optimizer and Croix because, even in combination, the references fail to teach or suggest all features of claim 7. Claims 12 and 13 are patentable for at least reasons somewhat similar to those set forth above with regard to claim 7.

Claim 9 recites, "the influence of each of a plurality of sets of setting parameters on the technical system is determined by checking the external

source," and thus, is patentable for reasons at least somewhat similar to those set forth above with regard to claim 7. In addition, claim 9 is patentable for the following additional reasons.

Each of Microsim, Optimizer and Croix are arguably directed to simulation methods and software, <u>without any connection to actual experiments</u>. Consequently, none of Microsim, Optimizer nor Croix teach or fairly suggest at least, "determining a result as a function of the set of setting parameters and based on a request to an external source, the result being in the form of an influence of the set of setting parameters on the technical system, <u>the external source being an experiment</u>," as required by claim 9.

Moreover, because each of Microsim, Optimizer and Croix are completely dependent and reliant upon simulations, but not real world experimental data, an external source that is an experiment would not have been obvious to one of ordinary skill. For at least the foregoing reasons, claim 9 is patentable over Microsim, Optimizer and Croix because, even in combination, the references fail to teach or suggest all features of claim 9.

Claims 2-4, 10, 11, 14, 15, 20-25, 30-32, 34-36, and 41-43 are patentable at least by virtue of their dependency from claims 7, 9, 12 or 13.

### Further Rejection under § 103(a)

The Examiner further rejects claims 8, 29 and 40 under 35 U.S.C. § 103(a) as unpatentable over Microsim, Croix, Optimizer and U.S. Patent No. 6,606,612 ("Rai"). Applicants traverse this rejection.

In the method of claim 8, a result is determined as a function of a set of setting parameters and based on a request to an external source. The result is in the form of an influence of the set of setting parameters on the technical system. The technical system is simulated based on the result and the setting constants. Afterward, the influence of each of a plurality of sets of setting parameters on the technical system is determined by checking the external source.

The Examiner correctly recognizes that Microsim and Optimizer fail to teach or suggest at least, determining an "influence of each of a plurality of sets of setting parameters on the technical system," by "checking the external source," as required by claim 8, but relies upon Croix to teach this feature. As discussed above with regard to claim 7, however, Croix also fails to teach or suggest this feature. Rai is also deficient with regard to this feature. Therefore, even if combined, the references fail to teach or suggest all features of claim 8.

Claims 29 and 40 are patentable by virtue of their dependency from claim 12, and for at least reasons somewhat similar to those set forth above with regard to claim 8.
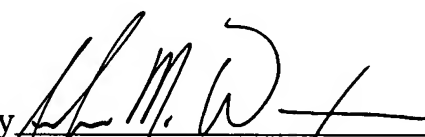
## **CONCLUSION**

Accordingly, in view of the above amendments and remarks, reconsideration of the objections and rejections and allowance of each of the pending claims in connection with the present application is earnestly solicited.

If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Andrew M. Waxman, Reg. No. 56,007, at the number of the undersigned listed below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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